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Willamette Valley Farmer Implements Conservation Practices Promoting Soil Health

By Oregon USDA-NRCS

Most of the crops Peter Kenagy grows on his 325-acre family farm in the heart of Oregon's Willamette Valley are typical of the area, yet his production methods are anything but conventional. Recognizing that productivity requires sustainability, Kenagy has joined a growing number of farmers in implementing conservation practices that promote soil health.

Cover crops are a notable example.

"Without something growing in the field you are wasting sunlight," Kenagy said. "Plus cover provides habitat for wildlife and forage for grazing."

- Peter Kenagy, CSP landowner

With help from Oregon State University (OSU) and the USDA Natural Resources Conservation

Service (NRCS), Kenagy has experimented with a number of techniques for protecting and enriching the soil, including an addition of a number of diverse cover crops, minimum tillage, strip tillage, no-till, and green manures.

Based on these trials, he settled on a cover crop system that successfully suppresses weeds, captures essential soil nutrients, and maintains soil organic matter levels with minimal soil disturbance.

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Cover crops on the Kenagi Family Farm.

Landowner Peter Kenagy and NRCS Soil Conservationist Cory Owens survey the landscape.

"My dad used cover crops as part of his planting system," Kenagy said. "It made sense to me to continue working to figure out the best possible method."

Kenagy enrolled in the NRCS administered Conservation Stewardship Program (CSP) in 2010 to do just that.

"Kenagy is a good operator, and takes a holistic approach to managing his operation," said

Benton county district conservationist Thomas Snyder. "He's been working to improve the soil as part of his regular routine for quite some time."

Soil scientists have found that cover crops not only help increase organic matter and improve soil health by adding living roots to the soil throughout the year, but also help improve water infiltration, and protect the soil against erosive heavy rains and strong winds. A typical rotation for Kenagy begins with green beans followed by a sudan grass cover that winter kills. Corn is then planted, followed by a cover of oats or triticale. Beans are grown on a three-year rotation, while corn is stretched out over four years.

"Beans will come off and we'll have the cover crop planted in a week," Kenagy explains. "It's now part of our normal post-harvest routine."

In addition to his cannery crops, Kenagy grows perennial rye grass for seed, vegetable seed, including hybrid red radish, Chinese cabbage, and dry peas. He also has small plots of native grass seed for local restoration, a growing goat herd, and a small pumpkin patch. Throw in a diverse range of cover crops, including vetch, phacelia, and red clover, and you've got a complex operation with a lot to manage.

Even so, Kenagy has proven up to the challenge, and has learned a great deal to benefit his farm production in the process.

"There's a difference in the top of soils that's been cover cropped versus what's been beat by rain and sealed up," Kenagy says. "The cover crop ground has better infiltration and you don't get the runoff."

Runoff control is especially important for his production, which is predominately located in the flood plain immediately adjacent to Oregon's picturesque Willamette River.

Kenagy's work with NRCS over the years has helped him fully realize the lasting benefits of soil health practices.

"Long-term, the only way we'll have a chance to be sustainable is to invest in the quality and health of the soil," Kenagy says.

Want to learn more about the Conservation Stewardship Program?

nrcs.usda.gov/farmbill

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